

Claims

1. An apparatus for reading from and/or writing to at least a first and a second type of optical recording media,
5 **including:**
 - a) means for performing a focus search cycle for the first type of optical recording medium, the means being adapted to provide a focus error signal (FE) and a data signal (RF),
 - 10 b) means for comparing the focus error signal (FE) and the data signal (RF) to respective thresholds and for emitting a signal indicative of the presence of an optical recording medium (S-CurveOK),
 - c) means for detecting a focal zero crossing based on the focus error signal (FE), and
 - 15 d) means for adapting settings to an operation mode for the second type of optical recording medium in case the data signal (RF) does not have a given relation to the respective threshold near the focal zero crossing.
2. The apparatus of claim 1, **wherein** the first type of optical recording medium to be distinguished is a high-reflectivity medium and the second type of optical recording medium is a low-reflectivity medium.
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3. The apparatus of claim 2, **wherein** the switching to the second type of optical recording medium is performed before the completion of a focus search cycle.
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4. The apparatus of claim 1, **further** including a first amplifier for a servo path signal and a second amplifier for a data path signal.
- 35 5. The apparatus of claim 2, **wherein** the indication that a low-reflectivity medium is loaded into the device causes the current search cycle with settings for a high-reflectivity medium to be abbreviated and to be continued with settings for a low-reflectivity medium.

6. A method for distinguishing between at least a first and a second type of optical recording media, **including**:

5 a) performing a focus search cycle for the first type of optical recording medium, whereby a focus error signal (FE) and a data signal (RF) are provided,

10 b) comparing the focus error signal (FE) and the data signal (RF) to respective thresholds and emitting a signal indicative of the presence of an optical recording medium (S-CurveOK),

c) detecting a focal zero crossing based on the focus error signal (FE), and

15 d) adapting settings to an operation mode for the second type of optical recording medium in case the data signal (RF) does not have a given relation to the respective threshold near the focal zero crossing.

7. The method of claim 6, **wherein** the first type of optical recording medium to be distinguished is a high-reflectivity medium and the second type of optical recording medium is a low-reflectivity medium.

8. The method of claim 6, **further** including the step of using an algorithm in order to distinguish between the types of optical recording media based on the signal relationship.

9. The method of claim 8, **wherein** the algorithm is designed to perform calculations resulting in distinguishing between the types of optical recording media in a single focus search cycle.